Federal Communications Commission
Washington, D.C. 20554

EX PARTE OR LATE FILED

March 24, 1997

Re: Docket 96-45

William Caton
Secretary
Federal Communications Commission
Washington DC 20554

Dear Mr. Caton:

On Wednesday, March 19, 1997, a large ex parte meeting was held in the Commission Meeting Room to discuss competitive bidding for universal service obligations. Prepared presentations were made by Paul Milgrom of Stanford University representing GTE, Barry Nalebuff of Yale University representing Ameritech, and Timothy Tardiff of National Economic Research Associates representing US West. Copies of their presentations are attached. In addition, a number of other parties attended the meeting. A list of participants is attached.

Sincerely,

Gregory L. Rosston
Office of Plans and Policy

An Auction Proposal

for

universal
service

Paul Milgrom

March 19, 1997

Preconditions

- *Quid Pro Quo*: support payments for obligation to serve
- Small size of service areas
  - » Avoids cherry picking
  - » Allows flexible business plans
- Unbundled element pricing
- ILEC exit conditions

Process

- Cost-based initial support levels
  - » cost basket approach
- Nominations
  - » Rules for entrants
  - » Rules for ILECs
- Auction
- Post auction implementation

Auction Rules

- **Solution to an Optimal Auction problem**
  - » sealed bid auction
  - » low bidder receives support
  - » "close enough" bidders also supported
    - Possible variations for facilities-based entry
  - » support equals highest accepted bid
- **Additional rules**
  - » zeroing the subsidy
  - » withdrawal rule: lowest winning bidder has first option to withdraw

Advantages

- Reduces subsidies
  » competition "for" the market
- Benefits consumers
  » competition "in" the market
- Encourages facilities-based entry where economically feasible

Cost Synergies

- Defined as percentage cost increase:

$$\frac{IC(A)+IC(B)-IC(A\&B)}{IC(A\&B)}$$

- Wireline technology:
  » index values in tested sample range from 0.0% to 8.1%
  » estimates based on BCM2
- Wireless and hybrid fiber-coax not yet evaluated

Economies of Density

- Depends on facility sharing arrangements
  - » wireless entry
  - » wireline entry
- Accommodated by
  - » bid withdrawals, or
  - » bids for sole and shared sourcing

COLR

Jeremy Bulow
Stanford Graduate School of Business

Barry Nalebuff
Yale School of Management

Fixed Payment vs. Per Subscriber Fee

- If only one LEC in a region then ideal subsidy would be per-subscriber
- Monopolist would make money on all customers and thus have incentive to serve entire market.
  - » Note: there might be a negative fixed fee to offset subsidy
- *If non-COLR players compete against COLR with per-subcriber subsidy, then COLR has unfair advantage.*

A Level Playing Field

- With fixed-fee subsidy, fair game between COLR and non-COLR providers
- Question: How to give fixed fee to more than one player?
  - » Answer: Divide fixed fee according to share of COLR market.
  - » Define COLR market by allowing firms to designate customers into a COLR pool.

Caveats

- COLRs have incentive not to seek customers
  - » Regulatory oversight is still needed
  - » But, issue still exists with per-subscriber subsidy. With subsidy s, company expects to make π_1+s on one segment and $-\pi_2+s$ on COLR segment. Thus s is below cost of subsidizing COLR customers, reflecting profits on non-COLR customers.

Awarding Multiple COLRs

- Easiest if only one COLR
- Multiple awardees creates several issues
  - » Risk of winning and losing money if don't get share--which depresses bidding
  - » One solution is multiple bids (Vincent)
    - – Likely outcome is one winner
    - – Bidding against self
  - » Our proposal is winner gets (say) 75% of subsidy in return for 75% of obligation. Second-highest bidder has option to match for remaining 25%.

Example

- 100 non-COLR customers, $\pi=10$
- 100 COLR customers
  - » $\pi = -10 * \sqrt{(100/\#COLR)}$
- If only one winner, bid = 0.01.
  - » Cost advantage over non-COLR players gives whole market
- If I expect two COLR winners, and will split the market, will require subsidy of 2/sub to break even.
  - » Intense competition for non-COLR may drive profit to zero and subsidy to 7/sub (which only increases competition for non-COLR). Cost of subsidy is 1,400 (7*200).
- With fixed fee payment, can bid subsidy of 1,000.

Funding and Distributing the Universal Service Subsidy

By Alfred E. Kahn and Timothy J. Tardiff

Presented to the

Federal Communications Commission

March 19, 1997

n/e/r/a

The Proposal

- Rebalance rates
- Customer-specific subsidies
- Subsidy level based difference in benchmark price and market price
  - Company's forward-looking costs
  - Efficient mark-ups
  - Recognition of historical legacy
- Funds raised by "taxing" telecommunications carriers
- Funds distributed to qualifying carriers, based on location specific costs

n/e/r/a

US West Innovation

- Fund investment difference rather than monthly price difference

- Example: Benchmark price: $30

  - Benchmark investment: $1,500

  - Required investment: $5,000

  - Investment subsidy: $3,500

n/e/r/a

US West Innovation (cont'd)

- Resembles investment tax credit

- Recognizes: capital intensity. permanence. declining cost structure

- In contrast, monthly vouchers are like the traditional regulatory promise and may be based on traditional notions of risk. deprecation. and cost-of-capital

- Similar to long-term contract

n/e/r/a

Relationship to Other Universal Service Funding Proposals

- Auctions

  - Need to approximate prices that would prevail under competition

  - Primary reliance on models (price simulations) versus business decisions

  - Recognition of capital intensity

- "Traditional" Vouchers

  - Payments based on quasi-regulatory bargain versus payments that attempt to match temporal pattern of investment outlays

n/e/r/a

Concluding Thoughts

- Rebalance rates with targeted subsidies

- Use ILEC's forward-looking costs

- Legacy of inadequately depreciated assets should be recognized

- Raising and distributing funds should be competitively neutral

nera

Universal Service Auction ex parte
March 19, 1997

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